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Supplementary Material

Porosity of Rigid Dendrimers in Bulk: Interdendrimer Interactions and Functionality as Key Factors

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When using argon as an adsorbate gas the value of the surface area was calculated according to the BET theory using the Temkin equation for the capacity of monolayer:

$$V_m = V\left(1 - {}^{p}/_{p_s}\right)\left(1 + \frac{{}^{p_s}/_{p} - 1}{C}\right) \quad (1)$$

where V_m is the capacity of monolayer, cm^3 /g; V is the value of adsorption corresponding to the given relative pressure p/p_s, cm^3/g; p is the equilibrium pressure of argon, mm Hg; p_s is the pressure of argon saturated vapor at T = –196°C and p_s = 240 mm Hg; and C is the *BET* constant depending on the energy of adsorption and temperature (in calculations the value of C was taken to be 60) [41]. The apparent BET surface area was calculated according to the equation:

$$S = 4.17V_m \quad (2)$$

where 4.17 is the area occupied by 1 mL of argon poured as a monomolecular layer.

Table S1. Skeletal density of dendrimers (ρ_s).

Dendrimer	**ρ_s, g/cm^3**
G2-PhPh	0.879
G2-PyPy	0.942
G3-PyPyPh	1.123
G3-PyPyPy	1.286

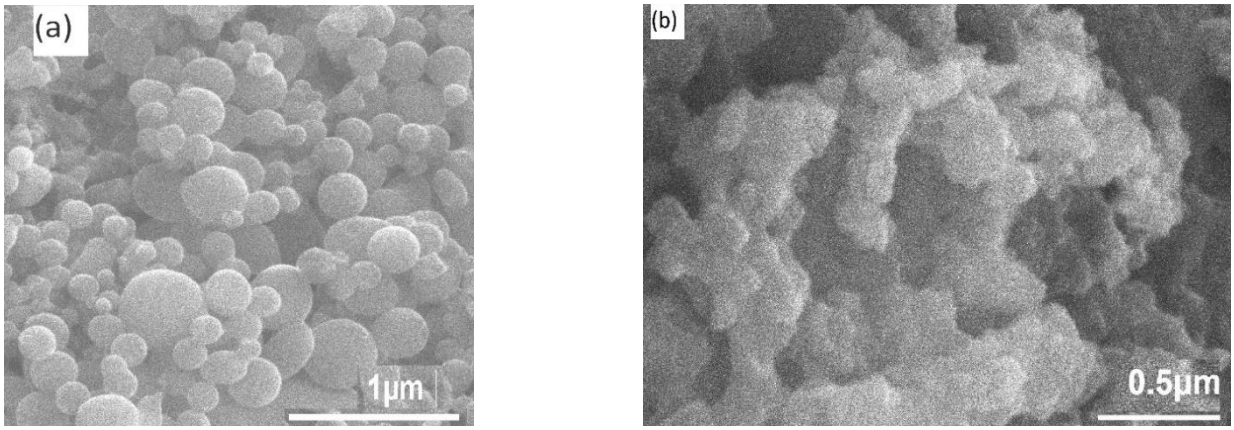

Figure S1. Surface morphology of dendrimer powders: G2-PyPy (**a**), and G3-PyPyPy (**b**).

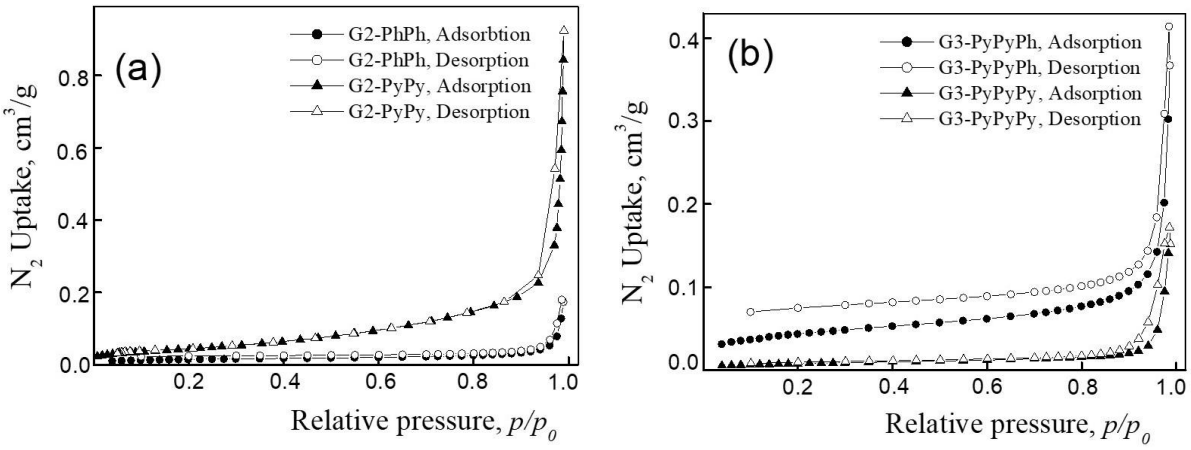

Figure S2. N_2 adsorption–desorption isotherms on dendrimers of second (**a**), and third (**b**) generations.

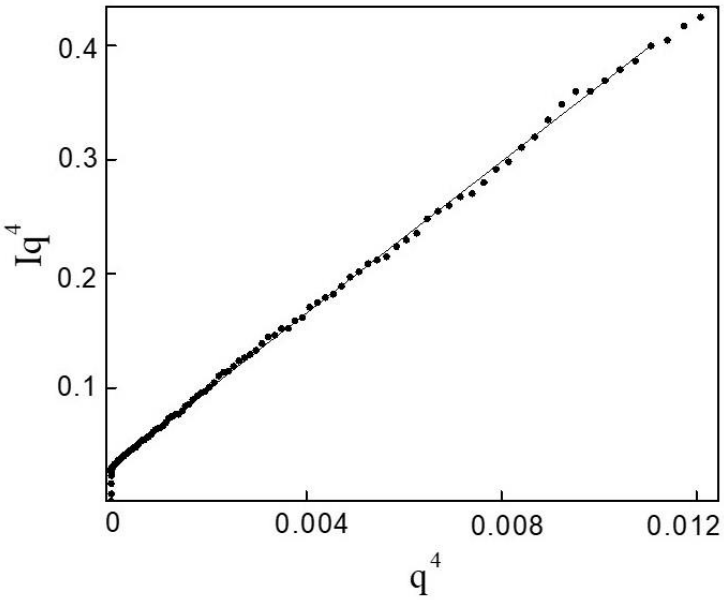

Figure S3. SAXS curve for G3-PyPyPy in Porod coordinates. The Porod constant is defined as the point of intersection of the ordinate axis with the linear approximation of the wide-angle region of the SAXS curve.